CITY OF LAKE FOREST
GRADING NOTES

1. All work shall be in accordance with the Grading Code of the local jurisdiction and any special requirements of the permit. A copy of the Grading Code shall be retained on the job site while work is in progress. When referenced on the plans, a copy of OC R&DMD or local jurisdiction Standard Plans shall also be retained on the site.

2. Grading shall not be started without first notifying the Grading Inspector. A pregrade meeting on-site will be required prior to start of grading operations which will include the presence of the following people: Owner, Grading Contractor, Design Civil Engineer, Soils Engineer, Geologist, Grading Inspector, and when required the Archaeologist and Paleontologist. The required inspections for grading will be explained at this meeting.

3. An approved copy of the Grading Plan shall be on the permitted site while work is in progress.

4. Cut and fill slopes shall be not steeper than 2' horizontal to 1' vertical (2:1), except where specifically approved otherwise.

5. Fills shall be compacted throughout to a minimum of 90 percent relative density. Aggregate base for asphalt areas shall be compacted to a minimum of 95 percent relative density. Maximum density shall be determined by Uniform Building Code Standard No. 70-2 or approved equivalent.

6. Areas to receive fill shall be properly prepared and approved, in writing, by the Soils Engineer and the Building Official prior to placing fill.

7. Fills shall be benched into competent material per local jurisdiction standard or OC R&DMD Standard Plan No. 1322.

8. All existing fills shall be approved by the Building Official or removed prior to placing additional fills.

9. Any existing irrigation lines and cisterns shall be removed, or crushed in place, and approved by the Building Official and Soils Engineer.

10. Prior to excavation, the Building Official shall approve stockpiling of excess material.

11. As a condition of rough grade approval, the Design Engineer shall provide a blue top with accompanying witness stake. These shall be set at the center of each pad reflecting the pad elevation for precise permits and a blue top with witness stake set at the drainage swale high point reflecting the high point elevation for Preliminary Permits.

12. All trench backfill shall be tested and approved by the Soils Engineer pursuant to the grading code.

13. After clearing and prior to the placement of fill in canyons, the Engineering Geologist and Soils Engineer shall inspect each canyon for area of adverse stability and to determine the presence or absence of subsurface water or spring flow. If needed, subdrains will be designed and constructed prior to the placement of fill in each respective canyon.

14. Subdrain outlets shall be completed at the beginning of the subdrain construction.

15. The exact location of the subdrains shall be surveyed in the field for line/grade and reflected on as-built grading plans.

16. All cut slopes shall be investigated both during and after grading by the Engineering geologist to determine if any slope stability problem exists. Should excavation disclose any geological hazards or potential geological hazards, the Engineering Geologist shall submit a recommended treatment to the Building Official for his or her approval.

17. Where support or buttressing of cut and natural slopes is determined to be necessary by the Engineering Geologist and Soils Engineer, the Soils Engineer shall submit design, location, and calculations to the Building Official prior to construction. The Engineering Geologist and Soils Engineer shall inspect and control the construction of the buttressing and certify to the stability of the slope and adjacent structures upon completion.

18. When cut pads are brought to near grade, the Engineering Geologist shall determine if the bedrock is extensively fractured or faulted and will readily transmit water. If considered necessary by the Engineering Geologist and Soils Engineer, a compacted fill blanket will be placed.

19. The Engineering Geologist shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.

20. The compaction report and approval from the Soils Engineer shall indicate the type of field testing performed. Each test shall be identified with the method of obtaining the in-place density, whether sand cone or drive ring and shall be so noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the Field Technician.

21. The Soils Engineer and Engineering Geologist shall perform sufficient inspections and be available during grading and construction to verify compliance with the plans, specifications, and code within their purview.

22. The Civil Engineer shall be available during grading to verify compliance with the plans, specifications, code, and any special conditions of the permit within his or her purview.

23. The permittee is responsible for dust control measures.

24. Sanitary facilities shall be maintained on the site.

25. The location and protection of all utilities is the responsibility of the permittee.

26. Approved protective measures and temporary drainage provisions shall be used to protect adjoining properties during grading.

27. Any existing water wells shall be abandoned in compliance with the specifications approved by the Building Official.

28. Any existing oil wells shall be abandoned in compliance with the specifications approved by the Building Official.

29. Any existing cesspools and septic tanks shall be abandoned in compliance with the Uniform Plumbing Code and to the satisfaction of the Building Official.

30. Prior to final approval, the Civil Engineer shall provide to the Building Official, certification of the amount of earth moved during the grading operation.

31. The permittee shall comply with the Grading Code requirements when transporting an excess of 5,000 cubic yards of earth on public roadways to or from a permitted site.

32. Asphalt concrete shall be constructed pursuant to the requirements of the City of Lake Forest or OC R&DMD Standard Plan 1805.

33. Aggregate base section shall be constructed pursuant to the requirements of the City of Lake Forest or OC R&DMD Standard Plan 1804.

34. All concrete structures that come in contact with the onsite soils shall be constructed with Type V cement, unless deemed unnecessary by soluble sulfate-content tests conducted by the Soils Engineer.

35. Export soil must be transported to a legal dump or to a permitted site approved by the Grading Inspector.

36. Slopes exceeding 5' in height shall be planted with an approved plant material. In addition, slopes exceeding 15' in height shall be provided with an approved irrigation system, unless otherwise approved by the Building Official.

37. The Engineer shall submit a letter of certification to the Building Official stating that the grading was done in compliance with the approved grading plan.

38. Asphalt sections must be per code: Parking stalls = 3" AC over 6” AB, Drives 3" AC over 10" (Commercial) 12" (Industrial). Or: Prior to rough grade release for Building Permits by the Grading Inspector, the Soils Engineer shall submit for approval pavement section recommendations based on “R” Value analysis of the subgrade soils, and expected traffic indices.

39. Preliminary soils and geology reports and all subsequent reports, as approved by the City of Lake Forest, are considered a part of the approved grading plan.

40. All existing drainage courses through this site shall remain open until facilities to handle storm water are approved and functional; however, in any case, the permittee shall be held liable for any damage due to obstructing natural drainage patterns.

41. Grading operations, including maintenance of equipment shall be accomplished within the confines of the noise ordinance and policies of the City of Lake Forest.

42. Roof gutters shall be installed to prevent roof drainage from falling on manufactured slopes.

43. The permittee shall give reasonable notice to the owner of adjoining lands and buildings prior to beginning excavations that may affect the lateral and subjacent support of the adjoining property. The notice shall state the intended depth of excavation and when the excavation will commence. The adjoining owner shall be allowed at least 30 days and reasonable access on the permitted property to protect his structure, if he so desires, unless otherwise protected by law.

EROSION CONTROL

44. Specify on plans:

In case of emergency call: (Name)

Work Telephone No.:
Home Telephone No.:

45. Equipment and workers for emergency work shall be made available at all times during the rainy season. Necessary materials shall be available onsite or stockpiled at convenient locations to facilitate rapid construction of temporary devices when rain is imminent.

46. Erosion control devices shall not be moved or modified without the approval of the Building Official.

47. All removable erosion protective devices shall be in place at the end of each working day when the 5-Day Rain Probability Forecast exceeds 40 percent.

48. After a rainstorm, all silt and debris shall be removed from streets, check berms, and basins.

49. Graded areas on the permitted area perimeter must drain away from the face of slopes at the conclusion of each working day. Drainage to be directed toward desilting facilities.

50. The permittee and contractor shall be responsible and shall take necessary precautions to prevent public trespass onto areas where impounded water creates a hazardous condition.

51. The undersigned Civil Engineer shall inspect the erosion control work and ensure that the work is in accordance with the approved plans.

Signature: Date:

UNDERGROUND STORAGE TANK REMOVAL

52. In the event that soil contamination is discovered during excavation and removal of an existing tank, work shall be stopped until a site assessment and mitigation plan has been prepared, submitted, and approved by a County Health Officer and the City of Lake Forest.

53. Issuance of a grading permit does not eliminate the need for permits from other agencies with regulatory responsibilities for construction activities associated with the work authorized on this plan.

ENVIRONMENTAL NOTES

54. The permittee shall notify all general contractors, subcontractors, material suppliers, lessees, and property owners that dumping of chemicals into the storm drain system or the watershed is prohibited.

55. Permittee shall maintain construction site in such condition that an anticipated storm does not carry wastes or pollutants off the site. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealant, glues, limes, pesticides, herbicides, wood preservatives and solvents; asbestos fibers, paints flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator, or battery fluids; fertilizers, vehicle/equipment wash water and concrete wash water; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical degreasing; and superchlorinated potable water line flushings.

    During construction, permittee shall dispose of such materials in a specified and controlled temporary area on-site, physically separated from potential storm water runoff, with ultimate disposal in accordance with local, state, and federal requirements.

56. Permittee may discharge material other than storm water only when necessary for performance and completion of construction practices and where they do not: cause or contribute to a violation of any water quality standard; cause or threaten to increase pollution, contamination, or nuisance; or contain a hazardous substance in a quantity reportable under federal regulations 40 CFR parts 117 and 302.

57. Dewatering of contaminated groundwater, or discharging contaminated soils via surface erosion is prohibited. Dewatering of non-contaminated groundwater requires a National Pollutant Discharge Elimination System (NPDES) permit from the respective State Regional Water Quality Control Board.

58. Survey monuments shall be preserved and referenced before construction and replaced after construction pursuant to Section 8771 of the Business and Professions Code.